# ON RECENTLY COLLECTED SOUTH AFRICAN TYCHIINI AND MECININI, WITH DESCRIPTION OF SEVEN NEW SPECIES (Coleoptera, Curculionidae)

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#### INTRODUCTION

In the latest years the previously poorly known South African species of Curculioninae of the tribes Tychiini and Mecinini were intensively studied. As for Tychiini, were revised the genera *Tychius* Germar, 1817 and *Sibinia* Germar, 1817 of the subtribe Tychiina (Caldara 1986, 1989, 1989a), revisions followed by additional descriptions of new species (Caldara 1993, 1996). Also the only two genera of Mecinini occurring in the Afrotropical region, *Gymnetron* Schoenherr, 1825 and *Cleopomiarus* Pierce, 1919, were both recently revised (Caldara 2003, 2005).

The most conspicuous result of these papers was that the African species number increased by several times. Prior to revisionary work, only a dozen of species of *Tychius* were known from the Afrotropical region, and about 45 species mainly from South Africa were described as new (Caldara 1989a, 1996). These taxa were arranged into six groups of species, four of which appear endemic, whereas two of them include also several Palaearctic species.

Coming to *Sibinia*, only 12 Afrotropical species were known, and their number increased to 60 (Caldara 1989b, 1993), being primarily the new ones described from South Africa. Due to their very close relationship with Palaearctic species, all Afrotropical *Sibinia* were provisionally considered as belonging to the nominotypical subgenus, and they were divided into eight groups, seven of which indigenous.

*Gymnetron* is now comprised of about 60 species from the Afrotropical region, 55 of which only recently described, primarily from South

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Africa (Caldara 2003). These species are currently included into 13 different groups, all of which considered endemic of this region.

Finally, to the six previously known species of Afrotropical *Cleopomiarus*, 15 additional ones were added, all from the southern part of Africa (Caldara 2005). They appear to be very closely related each other, and have been splitted in three groups, differing each other only by a few characters of genitalia. Only one of these groups is endemic for the Afrotropical region, whereas the other two include all the Palaearctic species as well.

Nothing was previously known about the biology of these Afrotropical weevils. The elucidation of their taxonomy, also with the aid of the better known bionomics of Palaearctic species, allowed to critically check the reliability of the plant names reported on the labels of several studied Afrotropical specimens. It was dicovered that the Afrotropical *Tychius*, like the Palaearctic and North American ones, live on the worldwide distributed family Fabaceae (Caldara 1989a, 1990), although on members of different tribes (Lotononideae and Indigofereae instead of Astragaleae and Trifoleae).

As for the Afrotropical species of *Sibinia*, at least part of them seem to live on Aizoaceae Mesembryanthemoideae (Caldara 1989b), a group of plants closely related to Caryophillaceae and Plumbaginaceae, on which the Palaearctic species breed.

The species of *Gymnetron* from the Afrotropical region appear to live on various Scrophulariaceae like *Hebenstreitia*, *Sutera*, *Selago*, *Buddleja*, *Diascia*, *Nemesia*, *Hemimeris* (Caldara 2003), and Stilbaceae like *Anastrebe*, a family closely related to Plantaginaceae (Caldara 2001, 2003, 2005), on which the Palaearctic species live.

The Palaearctic and North American species of *Cleopomiarus* feed on Campanulaceae, as also do the Afrotropical ones, usually developing on *Wahlenbergia*, *Roella* and *Lobelia*, plants of the same family (Caldara 2005).

Even during and after the above revisions, however, it was clear that much work was still necessary in order to know the number of species of these genera actually present in South Africa, since several specimens from this country were attributed to some probable new species, not described due to inadequacy of the available material. Moreover, the distribution of many species, sometimes known upon one or a few specimens, needed to be precised, as well as their bionomics, thus far totally unknown.

The aim of the present study is to report the results of the collectings made mainly in South Africa during the several trips primarily by colleagues of the universities of Rome "Sapienza" and "Roma Tre", and of the L'Aquila university.

Labels of specimens are reported as written. Total length, as customary for curculionids, is that from the apical margin of head excluding rostrum to the tip of elytra. Pictures were taken with a GVC GCX1E camera, associated when necessary with a Wild M5 microscope.

Type depositories are as follows: ALB = Albany Museum, Grahamstown, South Africa; CAL = Roberto Caldara collection, Milan, Italy; COL = Enzo Colonnelli collection, Rome, Italy; MZUR = Museo di Zoologia dell'Università "Sapienza", Rome, Italy; MCZR = Museo Civico di Zoologia, Rome, Italy; OSL = Giuseppe Osella collection, Verona, Italy; SANC = South African National Collection of Insects, Pretoria, South Africa

#### LIST OF COLLECTED SPECIES

The order of both groups and species follows that proposed for *Tychius* by Caldara (1986, 1989a, 1996), for *Sibinia* by Caldara (1989b, 1993), for *Gymnetron* by Caldara (2003), and for *Cleopomiarus* by Caldara (2005).

*Tychius intrusus* group

#### Tychius piger Caldara, 1989

Material. Eastern Cape: "E Cape - m 1250, old road to Katberg Pass, 32°19'71"S 26°40'51"E, 12.XI.2006, Colonnelli leg.", 1 ex.

DISTRIBUTION. South Africa (Eastern Cape).

Remarks. Previously known only from one male and one female from the type locality, Queenstown, also in the Eastern Cape.

#### **Tychius** sp. prope **oberprieleri** Caldara, 1989

Material. Eastern Cape: "E Cape, Uitenhage near Coega, 50 m, 33.45.84 S 25.39.03 E, 10.XI.2005, Osella leg.", 1 ex.

Remarks. This specimen differs from *T. oberprieleri* by the larger size (2.7 mm vs 1.9-2.3 mm) and the median lobe of the aedeagus which is more widened near apex. As previously reported (Caldara 1989), several other specimens are already known which cannot be reliably assigned to any of the decribed species, and probably belong to new ones closely related to *T. oberprieleri*.

## Tychius albulus group

## Tychius placidus Caldara, 1989

MATERIAL. Western Cape: "Cape Town, Kirstenbosch, 33.58.35S 18.26.15E, 23.XI.2007, E. Colonnelli leg.", 1 ex.; "Silverstroomstrand, m 20, 33.33.74S 18.22.88E, 14.XI.2007, Giusto, Colonnelli, Osella legg.", 14 exx.; "Cederberg, 10 km NW Algeria, m 300 ca., 32.20.46S 18.59.06E, 15.XI.2007, Giusto, Colonnelli, Osella legg.", 3 exx.; "Cederberg, 2 km N of Boshof, m 300, 32.20.46 S, 18.59.06, E. Colonnelli leg.", 2 exx.

DISTRIBUTION. South Africa (Western Cape).

Remarks. Previously known from a few localities near Cape Town.

## Tychius varius Caldara, 1989

MATERIAL. Western Cape: "W Cape, near Silverstroomstrand, 33.33.74 S, 18.22.28 E, 14.XI.2007, E. Colonnelli leg.", 1 ex.; "W Cape, 5 Km N Roothoogle Pass, 1150 m, S 33°31.85" E 19°50.85" (fynbos), 15.X.2005, Audisio, Biondi & De Biase leg.", 3 exx.; "W Cape, Montagu, m 300, S 33°47'08" E 20°06'79", 18.XI.2007, E. Colonnelli leg.", 10 exx.; "W Cape, Montagu, m 300 ca., 18.XI.2007, Giusto, Colonnelli & Osella leg.", 20 exx.; "W Cape, Cederberg, 10 km NW Algeria, m 300 ca., 32.20.46S 18.59.06E, 15.XI.2007, Giusto, Colonnelli, Osella leg.", 1 ex.; "W Cape, road Citrusdal-Elandskloof, m 700 ca., 32.37.74S 19.06.93, 17.XI.2007, Giusto, Colonnelli, Osella legg.", 4 exx.

DISTRIBUTION. South Africa (Western and Eastern Cape).

Remarks. This species feeds not only on *Aspalathus spinosa* L. as previously reported (Caldara 1989), but also on the rooibos tea, *A. linearis* (Burm. f.) R. Dahlgren which is a plant of relevant economical importance in South Africa since from its leaves and stems is produced a popular drink in southern Africa and also exported in many American and European countries.

## Tychius sp. prope varius Caldara, 1989

Material. Western Cape: "W Cape, Cederberg, 10 km NW Algeria, m 300 ca., 32.20.46S 18.59.06E, 15.XI.2007, Giusto, Colonnelli, Osella leg.", 9 exx.

Remarks. Since the complex of species closely related to *T. varius*, all living on *Aspalathus linearis*, is presently under morphological and biological study by Caldara and Staals, the present species, a new one, will be described in a future paper.

## Tychius humilis Caldara, 1989

Material. Western Cape: "W Cape, Uitkyk rivier, m 1000, 32.24.69 S, 19.95.24 E, 16.XI.2007, E. Colonnelli leg.", 2 exx.

DISTRIBUTION. South Africa (Western Cape).

Remarks. Previously known only from the type locality, Milnerton near Cape Town.

## Tychius wiborgiae Caldara, 1989

MATERIAL. Western Cape: "W Cape, Tygerfontein, 33.22.53 S, 18.15.79 E, 14.XI. 2007, E. Colonnelli leg.", 1 ex.

DISTRIBUTION. South Africa (Western Cape).

### Tychius den sevestitus Caldara n. sp.

Type series. "South Africa, Eastern Cape, Port Elisabeth dint., 18.XI.2006, G. Osella leg.", 1 male holotype (MZUR), and 56 males and 34 females paratypes (16 CAL, 74 OSL); "South Africa, E Cape, Port Elisabeth - Cape Recife, 34°01'42"S 25°40'09", 18.XI.2006, E. Colonnelli", 35 males and 19 females paratypes (4 ALB, 12 CAL, 31 COL, 4 MZUR, 3 MCZR); "South Africa, Grahamstown, Aerodrome, 33.17S 26.30E, 31.xii.1988, B. Grobbelaar & E.v.d. Linde / collected on *Elytropappus rhinocerotis*", 1 male paratype (SANC).

HOLOTYPE. Length 2.3 mm. Body oval, robust. Integument dark brown except apical half of rostrum, antennae and legs reddish, on dorsum completely hidden by recumbent, nearly unicolorous brown and greyish-brown scales, the latter covering sides and central part of base of pronotum, sutural and lateral interstriae and abdomen, sparse on other

interstriae. All scales broad, subelliptical to oval, with the brown scales 3-4x as long as wide and the greyish brown scales 1.5-2x as long as wide. Rostrum (fig. 1) moderately long, 0.81x as long as pronotum, in lateral view slightly curved, slightly and gradually tapered from antennal insertion to apex, sided in dorsal view slightly narrowed from base to apex. Frons slightly norrower than rostrum at base. Eyes feebly convex. Pronotum convex, weakly transverse, 1.13x as wide as long, sides subparallel in basal two thirds, then feebly constricted towards apex. Elytra short, 1.32x as long as wide, 1.25x wider than pronotum, suboval, convex, widest at basal third, sides feebly curved. Scales on interstriae arranged in 3-4 irregular rows. Striae obvious, with seta-like scales distinctly thinner than those on interstriae. Femora edentate, segment 3 of tarsi distinctly wider than 2 and clearly bilobed, claws with two short distinct processes. Ventrite 5 not foveate. Aedeagus as in fig. 15.

Paratypes. Length 2.0-2.4 mm. The scales of the dorsal vestiture may be completely unicolorous from brown to greyish. Females as males except rostrum slightly longer, 0.89x as long as pronotum, and more distinctly narrowed in apical half in lateral view (fig. 2). Spermatheca as in fig. 16. Spiculum ventrale as in fig. 17.

ETYMOLOGY. The name is a Latin adjective, which refers to the very dense vestiture of the body.

DISTRIBUTION. South Africa (Eastern Cape).

Remarks and comparative notes. Due to the shape of rostrum and the pattern of dorsal vestiture this species is similar to *T. varius*, from which differs in many characters, the most striking of which are lack of spots of white scales on elytral disc, smaller and almost flattened eyes, less convex pronotum, more robust legs.

BIONOMICS. All the specimens from near Port Elizabeth were collected on an unidentified Fabaceae with yellow flowers and succulent leaves growing along an artificial ditch in a sandy area. This is almost surely its host plant, since the finding of a single example on *Elytropappus* (Asteraceae Gnaphaleae) is surely occasional.

## Tychius saetosipennis Caldara n. sp.

Type series. "South Africa, Eastern Cape, old route for Fort Beaufort, 1250 m / S 32°19'71" E 26°40'51", 12.XI.2006, G. Osella leg.", 1 male holotype (MZUR), and 2 males and 1 female (1 CAL, 2 OSL); "ZA: E Cape - m 1250, old road to Katberg Pass, 32°19'71"S 26°40'51"E, 12.XI.2006, E. Colonnelli", 3 males paratypes (1 CAL, 2 COL).

HOLOTYPE. Length 2.2 mm. Body suboval, moderately robust. Integument dark brown except apical half of rostrum, antennae, tibiae and tarsi reddish, on dorsum moderately visible between recumbent, mostly narrow (length/width = 6/9), subelliptical, grevish scales, intermingled with a few broad scales on elytral suture and very sparse on other interstriae. Rostrum moderately long, 0.89x as long as pronotum, in lateral view slightly curved, regularly but distinctly tapered in apical half (fig. 3), in dorsal view with sided slightly narrowed from base to apex. Frons slightly wider than rostrum at base. Eyes flattened. Pronotum moderately convex, weakly transverse, 1.16x as wide as long, widest at middle, sides feebly curved, almost subparallel. Elytra subrectangular, moderately convex, 1.35x as long as wide, 1.31x wider than pronotum, subparallel-sided. Scales on interstriae arranged in 3-4 irregular rows. Striae clearly visible and with scales thinner than those on interstriae. Profemora and mesofemora subdentate, metafemora with small tooth, segment 3 of tarsi distinctly wider than 2 and clearly bilobed, claws with two distinct processes. Ventrite 5 not foveate. Aedeagus as in fig. 18.

Paratypes. Length 2.1-2.3 mm. The scales of the dorsal vestiture vary a little in density and width. Female rostrum has about the same length of that of male, only slightly differing in shape (fig. 4). Spermatheca as in *T. densevestitus* (fig. 16). Spiculum ventrale as in fig. 19.

ETYMOLOGY. The name refers to the dorsal vestiture formed mainly by elongate seta-like scales.

DISTRIBUTION. South Africa (Eastern Cape).

Remarks. Due to size, shape of rostrum and claws, this species is close to *T. placidus* Caldara, from which it distinctly differs by its unicolorous vestiture, dark brown femora, longer elytra covered with broad scales only on sutural interstria. In addition, *T. saetosipennis* is the only species in the group with toothed femora.

BIONOMICS. The specimens collected by Colonnelli and Osella were feeding on a small Fabaceae Lotoideae growing in grazed meadows near a stream.

## Tychius aspalathi Caldara, 1989

MATERIAL. Western Cape: "W Cape, Cape Town, Table Mountain, Tafelberg road, S 33°57.055 E 18°24.743 (fynbos), 4.X.2005, Audisio, Biondi & De Biase leg.", 4 exx.; "W Cape, Cape Town, Tafelberg Road, m 350 ca., 11.XI.2007, Giusto, Colonnelli, Osella leg.", 2 exx.; "W Cape, Camps Bay, m 0-200, 12.XI.2007, Giusto, Colonnelli, Osella leg.", 3 exx.; "W Cape, near Camps Bay - m 100 , S 33°58'11" E 18°22'21", 12.XI.2007, E. Colonnelli leg.", 1 ex.

DISTRIBUTION. South Africa (Western Cape).

## Tychius sp. prope aspalathi Caldara, 1989

Material. Western Cape: "W Cape - Tygerfontein, S 33°22'53" E 20°57'33", 14.XI. 2007, Colonnelli leg.", 1 ex.

Remarks. Almost surely this female specimen, characterized by fused processes of claws, is a new species related to *T. aspalathi*. It differs from this species by its rostrum less elongate and parallel-sided in dorsal view, more conical prothorax, reddish tibiae, and scales on elytral interstriae bicoloured, grey and light brown.

#### Tychius ensirostris Caldara, 1996

MATERIAL. Western Cape: "W Cape, Cederberg, Elandskloof - m 820, S 32°37'74" E 18°06'93", 17.XI.2007, E. Colonnelli leg.", 2 exx.; "W Cape, Road Citrusdal-Elandskloof, m 700 ca., 32.37.74S 19.06.93, 17.XI.2007, Giusto, Colonnelli, Osella leg.", 4 exx.

DISTRIBUTION. South Africa (Western Cape).

## Tychius helenae Caldara, 1989

MATERIAL. Western Cape: "W. Cape, near Camps Bay, m 100, 33.58.11S 18.22.21E, 22.XI.2007, E. Colonnelli leg.", 1 male; "W Cape, Camps Bay, m 0-200, 12.XI.2007, Giusto, Colonnelli, Osella leg.", 1 female.

DISTRIBUTION. South Africa (Western Cape).

REMARKS. This beautiful species, strongly characterized by its ves-

titure composed by blackish brown and white scales, was previously known only from two males also collected near Cape Town. Females differ from males only by their slightly longer rostrum which is of almost the same shape.

Sibinia punctirostris group

## Sibinia punctirostris (Gyllenhal, 1836)

MATERIAL. Western Cape: "W Cape, 20 Km NW of Gouritsmond, S 34°13.137 E 21°42.036 (fynbos), 10.X.2005, P. Audisio leg.", 6 exx.

DISTRIBUTION. South Africa (Western Cape, Eastern Cape).

## Sibinia eldae Caldara, 1989

Material. Western Cape: "W Cape, De Hoop Natural Reserve (dunes), S  $34^{\circ}28.551$  E  $20^{\circ}30.558$ , 8.X.2005, Audisio leg.", 1ex.

DISTRIBUTION. South Africa (Western Cape).

#### Sibinia dorsalis (Fåhraeus, 1843)

MATERIAL. Western Cape: "W Cape, Cape Peninsula, Sunbird Nature Park, 3.XI.2005, 34.07.21 S, 18.25.04 E, Osella leg.", 1 ex.; "W Cape, Vishoek Sunbird nat. res., S 34°07'21" E 18°25'04", 3/4.XI.2005, on *Carpobrotus* flowers, E. Colonnelli leg.", 6 exx.; "W Cape, between Ocean View and Scarborough, S 34°10'27" E 18°21'01", 3.XI.2005, E. Colonnelli leg.", 1 ex.

DISTRIBUTION. South Africa (Western Cape, Eastern Cape, KwaZulu/Natal).

Remarks. Since nothing was previously known on the biology of *S. dorsalis*, the collection of this species on *Carpobrotus* is a new datum, which is in accordance to the feeding on Aizoaceae of other species of this group.

#### Sibinia cervina group

#### Sibinia cervina Caldara, 1989

Material. Western Cape: "W Cape, Montagu - m 300 , S 33°47'08" E 20°06'79", 18.XI.2007, E. Colonnelli leg.", 9 exx.; "W Cape, road 46 13 Km E of Ceres, m 700, S 33°18'45" E 19°25'74", 17.XI.2007, E. Colonnelli leg.", 1 ex.; "W Cape, Cederberg, 2 Km N of Eicheboom, m 1050, S 32°25'83" E 19°09'16", 16.XI.2007, E. Colonnelli leg.", 1 ex.; "W Cape, Cederberg, Uitkyk rivier, m 1000, S 32°24'69" E 19°95'24", 16.XI.2007, E. Colonnelli leg.", 1 ex.; "W Cape, Montagu, m 300 ca., 18.XI.2007, Giusto, Colonnelli & Osella leg.", 6 exx.

DISTRIBUTION. South Africa (Western Cape).

#### Sibinia nobilis Caldara, 1989

Material. Western Cape: "W Cape, Cederberg, 2 Km N of Eicheboom - m 1050 , S 32°25'83" E 19°09'16", 16.XI.2007, E. Colonnelli leg.", 2 exx.; "W Cape, Cederberg, Elandskloof - m 820 , S 32°37'74" E 18°06'93", 17.XI.2007, E. Colonnelli leg.", 7 exx.; "W Cape, Cederberg, Uitkyk rivier, m 1000, S 32°24'69" E 19°95'24", 16.XI.2007, E. Colonnelli leg.", 1 ex.

DISTRIBUTION. South Africa (Western Cape).

Sibinia amylacea group

#### Sibinia amylacea (Thunberg, 1815)

MATERIAL. Western Cape: "W Cape, Cape Peninsula, Sunbird Nature Park, 3.XI.2005, 34.07.21 S, 18.25.04 E, Osella leg.", 1 ex.; "W Cape, road 318, Roothoogle Pass, m 1200, S 33°36.018 E 19°51.946 (fynbos), 7.X.2005, Audisio, Biondi & De Biase leg.", 2 exx.; "W Cape, 10 Km E of Melkbosstrand, 10.X.1995, Audisio leg.", 1 ex.; "W Cape, Vishoek Sunbird nat. res., S 34°07'21" E 18°25'04", 3/4.XI.2005, on *Carpobrotus* flowers, E. Colonnelli leg.", 2 exx.; "W Cape, between Ocean View and Scarborough, S 34°10'27" E 18°21'01", 3.XI.2005, E. Colonnelli leg.", 1 ex.

DISTRIBUTION. South Africa (Western Cape, Eastern Cape).

Remarks. Nothing was known about the biology of this species. Its collection on *Carpobrotus* (fig. 36) is a new datum, which confirms that the species of Afrotropical *Sibinia* live mainly on plants belonging to Aizoaceae

## Sibinia alacris Caldara, 1989

Material. Eastern Cape: "E Cape, Uitenhage near Coega, 50 m, 33.45.84 S 25.39.03 E, 10.XI.2005, Osella leg.", 1 ex.; "E Cape, Enlanjeni Game Reserve, m 100, S 33°38'46" E 26°33'99", 11.XI.2005, E. Colonnelli leg.", 1 ex. Western Cape: "W Cape, 30 Km E of Barrydale, m 350, S 33°44'58" E 20°57'33", 15.XI.2005, E. Colonnelli leg.", 1 ex.

DISTRIBUTION. South Africa (Western Cape, Eastern Cape).

Remarks. Previously known only from one locality of Western Cape (Mossel Bay) and one of Eastern Cape (Somerset East).

## Sibinia improba Caldara, 1989

Material. Western Cape: "W Cape, Montagu, m 300, 33.47.08 S, 20.06.79 E, 18.XI. 2007, E. Colonnelli leg.", 1 ex.

DISTRIBUTION. South Africa (Western Cape).

Remarks. Previously known only from the holotype collected at Papendorp, Western Cape.

#### Sibinia suturella Fåhraeus, 1843

Material. Western Cape: "W Cape, road R60 near Noordflaadak fork, m 200, S 33°39'55" E 19°32'13", 5.XI.2005, E. Colonnelli leg. on Aizoaceae", 1 ex.; "W Cape, Cape Town, Table Mountain, m 1000, S 33°57'09" E 18°24'13", 18.XI.2007, Colonnelli leg.", 1 ex.; "W Cape, Montagu, m 300, S 33°47'08" E 20°06'79", 18.XI.2007, E. Colonnelli leg.", 2 exx.

DISTRIBUTION. South Africa (Western Cape, Eastern Cape).

Remarks. Nothing was known about the biology of this species. Therefore its collection on a member of Aizoaceae is a new datum, in accordance with what is known about host plants of several Afrotropical *Sibinia*.

#### Sibinia voungai Caldara, 1993

Material. Western Cape: "W Cape, Road N 60, near Noordflaadak, m 200, 33.39.55 S 19.32.13 E, 5.XI.2005, Osella leg.", 3 exx.; "W Cape, road R60 near Noordflaadak fork, m 200, S 33°39'55" E 19°32'13", 5.XI.2005, on Aizoaceae, E. Colonnelli leg.", 3 exx.; "W Cape, 10 Km E of Oudtshoorn, m 300, S 33°37'02" E 22°06'33", 15.XI.2005, on

Aizoaceae, E. Colonnelli leg.", 1 ex. Eastern Cape: "E Cape, Grahamstown to Southwell, m 450/500, 33.24~S 26.35~E, 13.XI.2006, E. Colonnelli leg.", 2 exx.; "E Cape, Enlanjeni Game Reserve, m 100, S  $33^\circ38^\circ46$ " E  $26^\circ33^\circ99$ ", 11.XI.2005, E. Colonnelli leg.", 1 ex.; "E Cape, Shamwari Game Reserve, m 335, S  $33^\circ28^\circ78$ " E  $26^\circ01^\circ94$ ", 14.XI.2006, E. Colonnelli leg.", 1 ex.

DISTRIBUTION. South Africa (Western Cape, Eastern Cape).

REMARKS. Previously known only from the male holotype collected at Leeuvlak Kraal (Cederberg). The female differs from the male by the slighly thinner and distinctly longer rostrum, which is of almost of the same shape. As others species of its group, also *S. youngai* is now known to live on plants of Aizoaceae.

#### Sibinia contaminata group

## Sibinia contaminata Caldara, 1989

Material. Western Cape: "W Cape, 6 Km E of Calitzdorp, m 380, 27.X.1993, Audisio leg.", 1 ex.; "W Cape, Camps Bay, m 0-200, S 33°57'00" E 18°21'00", 12.XI.2007, Giusto, Colonnelli & Osella leg.", 1 ex.; "W Cape, near Camps Bay - m 100, S 33°58'11" E 18°22'21", 12.XI.2007, E. Colonnelli leg.", 7 exx.

DISTRIBUTION. South Africa (Western Cape).

REMARKS. Some specimens from Camps Bay differ from the typical form by the vestiture of elytra composed of reddish scales, with almost indistinct spots of paler scales on the first interstriae and whitish scales on the lateral ones

#### Sibinia laeta group

## Sibinia laeta Caldara, 1989

MATERIAL. Western Cape: "W Cape, Cederberg, 2 km N of Boshof, m 300, 32.20.46 S, 18.59.06, E. Colonnelli leg.", 3 exx.; "W Cape, 20 Km NW of Gouritsmond, S 34°13.137 E 21°42.036 (fynbos), 10.X.2005, Audisio leg.", 1 ex.; "W Cape, road 318, Roothoogle Pass, m 1200, S 33°36.018 E 19°51.946 (fynbos), 7.X.2005, Audisio, Biondi & De Biase leg.", 1 ex.; "W Cape, near Calendon, m 200, S 34°11.038 E 19°40.786 (road edge), 6.X.2005, Audisio, Biondi & De Biase leg.", 1 ex.; "W Cape, Tradouwspas near Barrydale, m 350, S 33°58.636 E 20°42.310 (fynbos), 7.X.2005, Audisio, Biondi & De Biase leg.", 1 ex.; "W Cape, Theronsberg Pass - m 1050, S 33°15.727 E 19°31.386

(karoo), 15.X.2005, Audisio leg.", 2 exx.; "W Cape, road Plettenberg Bay - Avontour - m 450, S 33°47.205 E 23°10.453 (fynbos), 14.X.2005, Audisio leg.", 1ex.; "W Cape, 25 Km N of Malgas - m 50 , S 34°11'43" E 20°34'16", 20.XI.2007, on *Galenia africana*, E. Colonnelli leg.". 3 exx.; "W Cape, near De Rust - m 500, S 33°33.808 E 22°34.404 (fynbos), 11.X.2005, Audisio leg.", 1 ex.; "W Cape, Vishoek Sunbird nat. res., S 34°07'21" E 18°25'04", 3/4.XI.2005, E. Colonnelli leg.", 1 ex.; "W Cape, Montagu - m 300 , S 33°47'08" E 20°06'79", 18.XI.2007, E. Colonnelli leg.", 5 exx.; "W Cape, Scarborough, S 34°10'43" E 18°21'05", 18.XI.2007, E. Colonnelli leg.". 1 ex.; "W Cape, near Sylverstroomstrand, S 33°33'74" E 18°22'29", 14.XI.2007, E. Colonnelli leg.", 10 exx.; "W Cape, near Camps Bay - m 100, S 33°58'11" E 18°22'21", 12.XI.2007, E. Colonnelli leg.", 6 exx.; "W Cape, 25 Km N of Malgas - m 50, S 34°11'43" E 20°34'16", 20.XI.2007, on *Galenia africana* L., E. Colonnelli leg.". 9 exx. Eastern Cape: "E Cape, Zuurberg Pass road - m 550, S 33°21'66" E 25°44'58", 17.XI.2006, E. Colonnelli leg.", 1 ex.

DISTRIBUTION. This species is widespread in the whole South Africa, Namibia and Angola.

REMARKS. The collection of this common species on *Galenia africa- na* L. is a new datum since nothing was previously known on the biology of *S. laeta*.

## Sibinia problematica Caldara, 1989

MATERIAL. Western Cape: "W Cape, road Swellendam - De Hoop, m 80 (fynbos), S 34°23.157 E 20°25.315, 8.X.2005, Audisio, Biondi & De Biase leg.", 1 ex.; "W Cape, Montagu, m 300 ca., 18.XI.2007, Giusto, Colonnelli & Osella leg.", 1 ex.

DISTRIBUTION. South Africa (Western, Eastern and Northern Cape Provinces).

#### Sibinia turneri Caldara, 1989

MATERIAL. Western Cape: "W Cape, Cape Peninsula, Sunbird Nature Park, 3.XI.2005, 34.07.21 S, 18.25.04 E, Osella leg.", 2 exx.; "W Cape, Hermanus, 16.XI.2005, 34.25 S, 19.14 E, E. Colonnelli leg.", 4 exx.; "W Cape, between Ocean View and Scarborough, 34.10.27 S, 18.21.01 E, 3.XI.2005, on flowers of *Carpobrotus* sp., E. Colonnelli leg.", 2 exx.; "W Cape, Nature's Valley, 33.58.05 S, 23.32.33 E, 14.XI.2005, on flowers of *Carpobrotus* sp., E. Colonnelli leg.", 5 exx.; "W Cape, Vishoek Sunbird nat. res., 34.07.21 S 18.25.04 E, 3/4.XI.2005, E. Colonnelli leg.", 1 ex.; "W Cape, Nature's Valley, 33°58'05"S 23°32'33"E, 14.XI.2005, E. Colonnelli leg.", 1 ex.; "W Cape, Cederberg, 2 Km N of Eicheboom, m 1050, 32°25'83"S 19°09'16"E, 16.XI.2007, E. Colonnelli leg.", 14 exx.; "W Cape, De Hoop Nat. Res. (dunes), S 34°28.551 E 20°30.558, 8.X.2005, Audisio leg.", 1 ex.; "W Cape, Blossom station - m 440, 33°44'74"S 22°17'80"E, 7.XI.2005, E. Colonnelli leg.", 1 ex.; "W Cape, Montagu, m 300 ca., 18.XI.2007, Giusto, Colonnelli & Osella leg.", 1 ex.; "W Cape, between Ocean View and Scarborough, 34.10.27 S 18.21.01 E, 3.XI.2005, E. Colonnelli leg.", 3 exx.; "W Cape, 25 Km N of Malgas, m 50, 34.11.43 S 20.34.16 E, 20.XI.2007, E. Colonnelli leg.", 1 ex.; Eastern Cape: "E Cape, En-

lanjeni Game Reserve, m 100, 33.38.46 S 26.33.99E, 11.XI.2005, E. Colonnelli leg.", 1 ex.; "E Cape, Port Elisabeth dint., 18.XI.2006, G. Osella leg.", 6 exx.; "E Cape, Kenton on Sea (Port Alfred), 33.40.77 S 26.40.81 E, 11.XI.2006, Osella leg.", 26 exx.; "E Cape, Kenton on Sea (dune), 33.40.77 S 26.40.81 E, 11.XI.2005, E. Colonnelli leg.", 4 exx.; "E Cape, Port Elisabeth, Cape Recife, 34.01.42 S 25.40.09 E, 18.XI.2006, E. Colonnelli leg.", 3 exx.; "E Cape, Kenton on Sea (dunes), S 33.40.77 S 26.40.81 E, 11.XI.2005, E. Colonnelli leg.", 30 exx.; "E Cape, Port Elisabeth - Cape Recife, 34°01'42"S 25°40'09"E, 18.XI.2006, E. Colonnelli leg.", 5 exx.; "E Cape, near Enlanjeni Reserve, m 100, 33.38.46 S 26.3.99 E, 11.XI.2005, E. Colonnelli leg.", 1 ex.

DISTRIBUTION. South Africa (Western, Eastern and Northern Cape Provinces), Namibia.

Remarks. Nothing was previously known about the biology of this species, or of the others of its group. Its collection on *Carpobrotus* growing on the dunes proves that also members of this group probably lives on Aizoaceae as many other South African species.

#### Sibinia fogatoi Caldara, 1989

Material. Western Cape: "W Cape, Camps Bay, m 0-200, S 33°57'00" E 18°21'00", 12.XI.2007, Giusto, Colonnelli & Osella leg.", 2 exx.

DISTRIBUTION. South Africa (Western Cape).

#### Sibinia relata Caldara, 1989

MATERIAL. Western Cape: "W Cape, Scarborough, Schuster's Bay (fynbos), 34.10.27 S, 18.21.01 E, 3.XI.2005, Osella leg.", 6 exx.; "W Cape, between Ocean View and Scarborough, 34.10.27 S, 18.21.01 E, 3.XI.2005, on flowers of *Carpobrotus* sp., E. Colonnelli leg.", 1 ex.; "W Cape, Vishoek, Sunbird Nature Park, 3.XI.2005, 34.07.21 S, 18.25.04 E, on flowers of *Carpobrotus* sp., E. Colonnelli leg.", 5 exx.; "W Cape, Cederberg, 10 km NW Algeria, m 300 ca., 32.20.46S 18.59.06E, 15.XI.2007, Giusto, Colonnelli, Osella leg.", 1 ex.; "W Cape, Cederberg, 2 Km N of Boshof - m 300 , 32.20.48 S 18.59.06 E, 15.XI.2007, E. Colonnelli leg.", 18 exx.

DISTRIBUTION. South Africa (Western Cape).

REMARKS. Species previously known only from the type locality (Worcester). Some specimens from the surroundings of Boshof (fig. 31) differ from the typical form (fig. 30) by the elytral vestiture not unicolorous but composed by brown and white scales, the latter forming many distinct spots like in *S. laeta*. As for *S. turneri*, the collection of *S. relata* on *Carpobrotus* is a new datum.

## Sibinia in compta Caldara n. sp.

Type series. "South Africa: E Cape, Kenton on Sea (dune), 33°40'77''S 26°40'81''E", 11.XI.2005 - E. Colonnelli", 1 male holotype (MZUR) and 3 males and 2 females paratypes (2 CAL, 3 COL); "South Africa - Eastern Cape, Kenton on Sea (Port Alfred), 11.XI.2005, Osella leg., 33°40'77''S 26°40'81''E", 2 male and 1 female paratypes (1 CAL, 2 OSL).

HOLOTYPE. Length 2.5 mm. Body suboval, moderately robust (fig. 29). Integument blackish brown except apical half of rostrum, elvtra and legs reddish, on dorsum scarcely visible between dense, recumbent, moderately long (length/width = 4/5) subelliptical scales of different colours: reddish brown, light brown and whitish, the latter forming a longitudinal median vitta and some lateral spots on pronotum and several spots on elytra especially on interstriae 3, 5 and 7, elytral interstriae with many appressed irregular rows of scales. Rostrum moderately long, 0.98x as long as pronotum, in lateral view almost of same width from base to apex, somewhat curved (fig. 5), in dorsal view parallel-sided. Frons as wide as rostrum at base. Eyes broad, moderately convex. Pronotum moderately convex, feebly transverse, 1.18x as wide as long, subconical, with slightly curved sides, widest at base. Elytra suboval, with subparallel sides in basal half, moderately long, 1.21x as long as wide, 1.43x wider than pronotum, a little convex. Segment 3 of tarsi distinctly wider than 2 and clearly bilobed, claws with processes long as half of one claw. Ventrite 5 without fovea. Median lobe of aedeagus short, sides subrectilinear, apex not prominent and rounded like in S. relata (see Caldara 1989).

Paratypes. Length 2.40-2.60 mm. Sometimes all the brown scales of the dorsal vestiture are very light and scarcely contrasting with the whitish ones. Female rostrum almost of the same shape as in male (fig. 6), only moderately longer, 1.10x as long as pronotum. Spermatheca and spiculum ventrale as in the other species of the group (see Caldara, 1989).

ETYMOLOGY. The Latin adjective "incompta" is used in the sense of "ruffled" and refers to the scales on elytral interstriae which are adpressed and irregularly arranged.

DISTRIBUTION. South Africa (Eastern Cape).

REMARKS AND COMPARATIVE NOTES. This species is similar to S. relata,

with which shares the shape of genitalia, differing however by the elytral vestiture denser, the pronotum subconical, less transverse and with sides almost rectilinear, shorter rostrum of female.

BIONOMICS. Also this species was collected on an unknown Aizoaceae (fig. 37) growing on sand dunes.

Sibinia perfecta group

#### Sibinia perfecta Caldara, 1989

Material. Western Cape: "W Cape, Cederberg, 2 Km N of Boshof - m 300, S 32° 20'48" E 18°59'06", 15.XI.2007, E. Colonnelli leg.", 1 ex.

DISTRIBUTION. South Africa (Western Cape, Northern Cape), Namibia

#### Sibinia perssoni Caldara, 1989

Material. Western Cape: "W Cape, 25 Km N of Malgas - m 50, 34°11'43"S 20°34'16''E, 20.XI.2007, on *Galenia africana*, E. Colonnelli leg.", 1 ex.; "W Cape, Tygerfontein, 33°22'53''S 20°57'33''E, 14.XI.2007, on *Galenia africana* L., E. Colonnelli leg.", 2 exx. Eastern Cape: "E Cape, Enlanjeni game res. - m 100, 33°38'46''S 26°33'99''E, 11.XI.2005, E. Colonnelli leg.", 1 ex.; "E Cape, Shamwari game res. - m 335, 33°28'78''S 26°01'94''E, 14.XI.2006, E. Colonnelli leg.", 2 exx.

DISTRIBUTION. South Africa (Western, Eastern and Northern Cape), Namibia

REMARKS. As other species of the group, *S. perssoni*, of whose biology nothing was known, lives on *Galenia africana* L.

#### Sibinia thompsoni Caldara, 1989

Material. Western Cape: "W Cape, Road N 60 near Noordflaadak, m 200, 33.39.55 S 19.32.13 E, 5.XI.2005, Osella leg.", 1 ex.; "W Cape, 30 Km E of Barrydale - m 350, 33.44.58 S 20.57.33E, 15.XI.2005, E. Colonnelli leg.", 2 exx.

DISTRIBUTION. South Africa (Western, Eastern and Northern Cape), Namibia.

#### Sibinia marshalli Caldara, 1989

MATERIAL. Western Cape: "W Cape, Tygerfontein, 33.22.53 S 20.57.33 E, 14.XI.2007, on *Galenia africana* L., E. Colonnelli leg.", 1ex.; "W Cape, 30 Km E of Barrydale, m 350, 33.44.58 S 20.57.33 E, 15.XI.2005, E. Colonnelli leg.", 1 ex.; "W Cape, Poortjeskloofdam, m 400, 33.53.76 s 20.22.53 E, 20.XI.2007, E. Colonnelli leg.", 1 ex.; "W Cape, Karooport - m 900, 33.19.79 S 19.33.37 E, 17.XI.2007, on *Galenia africana* L., E. Colonnelli leg.", 1 ex.; "W Cape, near De Rust, m 500, S 33°33.808 E 22°34.404 (fynbos), 11.X.2005, Audisio leg.", 1ex.; Eastern Cape: "E Cape, road 343 15 Km SE of Grahamstown, m 350, 33.23.97 S 26.28.43 E, 3.V.2005, E. Colonnelli leg.". 1ex.

DISTRIBUTION. South Africa (Western, Eastern and Northern Cape), Namibia.

Remarks. Also *S. marshalli*, the biology of which was previously unknown, lives on *Galenia africana* like several other species of the group.

#### Sibinia micros Caldara, 1989

Material. Western Cape: "W Cape, Tygerfontein, 33.22.53 S 20.57.33 E, 14.XI.2007, E. Colonnelli leg.", 1 ex.; "W Cape, 25 Km N of Malgas, m 50, 34.11.43 S 20.34.16 E, 20.XI.2007, on *Galenia africana* L., E. Colonnelli leg.", 1 ex.; "W Cape, 30 Km E of Barrydale - m 350, 33.44.58 S 20.57.33 E, 15.XI.2005, E. Colonnelli leg.", 1 ex.; "W Cape, Montagu, m 300 ca., 18.XI.2007, Giusto, Colonnelli & Osella leg.", 4 exx. Eastern Cape: "E Cape, Enlanjeni Game Reserve, m 100, 33.38.46 S 26.33.99 E, 11.XI.2005, E. Colonnelli leg.", 1 ex.

DISTRIBUTION. South Africa (Western, Eastern and Northern Cape), Namibia

Remarks. This species was previously collected on *Mesembryante-mum*. Its collection on *Galenia africana* L. is a new datum.

## Sibinia galeniae Caldara, 1989

Material. Western Cape: "W Cape, Tygerfontein, 33.22.53 S 20.57.33 E, 14.XI.2007, E. Colonnelli leg.", 1 ex.

DISTRIBUTION. South Africa (Western, Eastern and Northern Cape), Namibia.

## Sibinia bruchoides Caldara, 1989

MATERIAL. Western Cape: "W Cape, road Plettenberg Bay - Avontour - m 450, S

33°47.205 E 23°10.453 (fynbos), 14.X.2005, Audisio leg.", 1 ex.; "W Cape, Op de Tradouw Pass, m 400, S 33°54.824 E 20°40.613 (karoo), 7.X.2005, Audisio leg.", 4 exx.; "W Cape, Tygerfontein, 33.22.53 S 20.57.33 E, 14.XI.2007, on Galenia africana L., E. Colonnelli leg.", 11 exx,; "W Cape, Poortjeskloofdam - m 400, 33.53.76 S 20.22.53 E, 20.XI.2007, E. Colonnelli leg.", 1ex.; "W Cape, Cederberg, Elandskloof - m 820 , 32.37.74 S 18.06.93E, 17.XI.2007, E. Colonnelli leg.", 3 exx.; "W Cape, Karooport m 900, 33.19.79 S 19.33.37 E, 17.XI.2007, on Galenia africana L., E. Colonnelli leg.", 40 exx.; "W Cape, Cederberg, 2 Km N of Eicheboom - m 1050, 32.25.83S 19.09.16E, 16.XI.2007, E. Colonnelli leg.", 1 ex.; "W Cape, Cederberg, 2 Km N of Boshof - m 300, 32.20.48S 18.59.06 E, 15.XI.2007, E. Colonnelli leg.", 2 exx.; "W Cape, 30 Km W of Piketberg, 32.49.75S 18.28.85 E, 14.XI.2007, E. Colonnelli leg.", 2 exx.; "W Cape, Swellendam, Marloth Natural Reserve, m 400, S 33°58'58'' E 20°26'18'', 19.XI.2007, Giusto leg.", 1 ex.; "W Cape, Montagu, m 300, 33.47.08S 20.06.79 E, 18.XI.2007, E. Colonnelli leg.", 2 exx.; "W Cape, road 326 near Rietpoet, m 200, 34.11.02 S 19.47.81 E, 16.XI.2005, E. Colonnelli leg.", 9 exx.; "W Cape, 30 Km E of Barrydale, m 350, 33.44.58 S 20.57.33 E, 15.XI.2005, E. Colonnelli leg.", 8 exx.; "W Cape, 25 Km N of Malgas, m 50, 34.11.43 S 20.34.16 E, 20.XI.2007, E. Colonnelli leg.", 2 exx.

DISTRIBUTION. South Africa (Eastern, Western and Northern Cape), Namibia

Remarks. These new collections confirm that this common species lives on *Galenia africana* L.

## Sibinia pretiosa Caldara, 1989

MATERIAL. Western Cape: "W Cape, Montagu, m 300, 33.47.08 S 20.06.79 E, 18.XI.2007, E. Colonnelli leg.", 2 exx.

DISTRIBUTION. South Africa (Mpumalanga, Gauteng, Western Cape).

Sibinia acalloides group

#### Sibinia pyriformis Caldara, 1989

MATERIAL. Eastern Cape: "E Cape, Enlanjeni Game Reserve, m 100, 33.38.46 S 26.33.99 E, 11.XI.2005, E. Colonnelli leg.", 1 ex.

DISTRIBUTION. South Africa (Eastern Cape, Western Cape).

Remarks. This species was previously known only from a few localities in the Western Cape.

## Sibinia acalloides Caldara, 1989

Material. Western Cape: "W Cape, Theronsberg Pass, m 1050, S 33°15.727 E 19°31.386 (karoo), 15.X.2005, Audisio leg.", 1 ex.

DISTRIBUTION. South Africa (Western Cape).

## Sibinia clarki Caldara, 1989

Material. Western Cape: "W Cape, 30 km E of Barrydale, 15.XI.2005, 33.44.58 S, 20.57.32 E, Osella leg.", 1 ex.; "W Cape, 30 Km E of Barrydale, m 350, 33.44.58 S 20.57.32 E, 15.XI.2005, E. Colonnelli leg.", 5 exx.; "W Cape, around Talana, m 300, 33.47.96 S 20.10.74 E, 18.XI.2005, E. Colonnelli leg.", 1 ex.

DISTRIBUTION. South Africa (Western, Eastern and Northern Cape), Namibia (Caldara 1989, 1993).

Sibinia modesta group

## Sibinia polysignata Caldara, 1993

Material. Western Cape: "W Cape, Uitkyk rivier, m 1000, 32.24.69 S, 19.95.24 E, 16.XI.2007, E. Colonnelli leg.", 1 ex.

DISTRIBUTION. South Africa (Western and Northern Cape).

#### Gymnetron agile group

# Gymnetron caligineum Caldara, 2003

MATERIAL. Western Cape: "W Cape, between Ocean View and Scarborough, 34.10.27 S 18.21.01 E, 3.XI.2005, E. Colonnelli leg., 1 ex.

DISTRIBUTION. South Africa (Western Cape, KwaZulu/Natal, Mpumalanga).

Remarks. This species was not known previously from the Western Cape.

## Gymnetron ugandanum group

## Gymnetron auricomum Caldara, 2003

MATERIAL. Western Cape: "W Cape, Scarborough, 34.10.43 S 18.21.05 E, 12.XI.2007, on flowers of *Pseudoselago* sp., E. Colonnelli leg.", 6 exx.

DISTRIBUTION. South Africa (Western Cape).

Remarks. This species was described from a single male collected at Milnerton, close to Cape Town and not far from Scarborough, located in the Cape Peninsula. Unfortunately, also the six additional specimens collected are all males. No bionomic data were previously known about any species of this group, so that it is most probably that also they live on Scrophulariaceae like many other Afrotropical *Gymnetron*.

## Gymnetron youngai Caldara, 2003

Material. Western Cape: "W Cape, 25 Km E of Prince Albert, m 900 (karoo), S 33°16.387 E 22°15.306, 11.X.2005, P. Audisio leg.", 1 ex.

DISTRIBUTION. South Africa (Western Cape).

Gymnetron lanosum group

#### Gymnetron bipartitum Gyllenhal, 1838

MATERIAL. Western Cape: "W Cape, between Ocean View and Scarborough, 34.10.27 S 18.21.01 E, 3.XI.2005, E. Colonnelli leg.", 5 exx.; "W Cape, Scarborough, 34.10.43 S 18.21.05 E, 12.XI.2007, E. Colonnelli leg.", 1 ex.; "W Cape, Scarborough, Schuster's Bay (fynbos), 34.10.27 S 18.21.51 E, 3.XI.2005, E. Colonnelli leg.", 1 ex. Eastern Cape: "E Cape, Peddie S.S.N. 2, 15.XI.2006, Osella leg.", 3 exx.; "E Cape, Kenton on Sea, 33.42.40 S 26.35.64 E, 6.XI.2006, Osella leg.", 3 exx.; "E Cape, near Kenton on Sea, 33.42.40 S 26.35.64 E, 6.XI.2006, on flowering *Tetraselago*, E. Colonnelli leg.", 9 exx.; "E Cape, Port Elisabeth dint., 18.XI.2006, Osella leg.", 1 ex.; "E Cape, Paterson - m 300, 33.26.55 S 25.58.12 E, 17.X.2006, E. Colonnelli leg. on flowering *Wahlenbergia*", 12 exx.; "E Cape, Paterson, crossroads Alicedale S.S.N. 10, 380 m, 33.12.94 S 25.54.27 E, 14.XI.2006, Osella leg.", 1 ex.; "E Cape, between Coega and Uitenhage, 130 m, *Aloe* bush, 33.43.63 S 25.30.28 E, 10.XI.2005, Osella leg.", 1 ex.

DISTRIBUTION. Species probably widespread in the whole South Africa

Remarks. The collection of *G. bipartitum* on *Tetraselago* and *Wahlenbergia* are new bionomic data since nothing was previously known about the biology of this species (Caldara, 2003). However, on the basis of bionomics of other species of the group, whereas the Scrophulariaceae *Tetraselago* is probably a host plant, the Campanulaceae *Wahlenbergia* seems only a refuge plant.

## Gymnetron oxystomoides Caldara, 2003

Material. Western Cape: "W Cape, Montagu - m 300, 33.47.08 S 20.06.79 E, 18. XI.2007, E. Colonnelli leg.", 2 exx. Eastern Cape: "E Cape, Bisho dint. Road N2, Gwanga river, 33.16.05 S 26.55.45 E, 7.XI.2006, Osella leg.", 13 exx.; "E Cape, Peddie, Gwanga river - m 330, 33.07.53 S 27.08.86E, 7.XI.2006, E. Colonnelli leg.", 1 ex.; "E Cape, Paterson - m 300, 33.26.55 S 25.58.12 E, 17.X.2006, on flowering *Wahlenbergia*, E. Colonnelli leg.", 2 exx.

DISTRIBUTION. South Africa (Western Cape, Eastern Cape, KwaZulu/Natal, Mpumalanga), Lesotho.

Remarks. As other species of the group this species appears related with Scrophulariaceae of the genus *Sutera* (Caldara 2003). It is probable that the Campanulaceae *Wahlenbergia* is only a refuge plant.

#### Gymnetron cinerarium group

#### **Gymnetron piceum** Caldara, 2003

MATERIAL. Western Cape: "W Cape, Cape Peninsula, Sunbird Nature Park, 3.XI.2005, 34.07.21 S, 18.25.04 E, Osella leg.", 1 ex.; "W Cape, near Camps Bay - m 100, 33°58'11''S 18°22'21"E, 12.XI.2007, on flowering *Tetraselago*, E. Colonnelli leg.", 6 exx.; Eastern Cape: "E Cape, Zuurberg Pass road, m 550, 33.21.66 S 25.44.56 E, 17.XI.2006, on Tetraselago sp., E. Colonnelli leg.", 2 exx.; "E Cape, Kareedouw Pass, m 450, 33.57.67 S 24.16.15 E, 16.XI.2006, Osella leg.", 10 exx.; "E Cape, 30 km prima di Alexandria, 33.36.16 S 26.08.18 E, 7.XI.2006, Osella leg.", 55 exx.; "E Cape, Grahamstown, Toposcope forest, m 750, 33.19.03 S 26.33.24 E, 13.XI.2005, Osella leg.", 8 exx.; "E Cape, W Bisho km 35 from Peddie S.S.N. 2, 280 m, 33.16.69 S 26.48.95 E, 14.XI.2006, Osella leg.", 10 exx.; "E Cape, Grahamstown, Alicedale, Blaukranz forest, 15.XI.2005, Osella leg.", 1 ex.; "E Cape, Kenton on Sea (Port Alfred), 33.40.77 S 26.40.81 E, 11.XI.2006, Osella leg.", 3 exx.; "E Cape, Grahamstown, between Atherston and Stonehaven, m 630, 33.20.46 S 26.21.28 E, 12.XI.2005, Osella leg.", 7 exx.; "E Cape, vicinity of Salem, m 180, R343 near Kikuyu Lodge Game Reserve, 33.33.28 S 26.22.83 E, 10.XI.2005, Osella leg.", 17 exx.; "E Cape, road N2 10 Km SW of Grahamstown - m 350, 33°22'18"S 26°28'58''E, 10/11.XI.2005, on flowering Tetraselago, E. Colonnelli leg.", 6 exx.; "E Cape, road Port Alfred to Southwell - m 130, 33°35'08''S 26°40'53''E, 11.XI.2005, on flowering *Tetraselago*, E. Colonnelli leg.", 5 exx.; "E Cape, road Grahamstown to Southwell, m 450/500, 33°24'S 26°35'E, 13.XI.2005, on flowering *Tetraselago*, E. Colonnelli leg.", 12 exx.; "E Cape, road R72 30 Kw W of Alexandria, 33°36'16''S 26°09'18''E, 6.XI.2006, on flowering *Tetraselago*, E. Colonnelli leg.", 11 exx.; "E Cape, road Atherston to Stonehaven - m 830, 33°20'46''S 26°21'28''E, 3.V.2005, on flowering *Tetraselago*, E. Colonnelli leg.", 14 exx.; "E Cape, Zuurberg Pass road - m 550, 33°21'66''S 25°44'58''E, 17.XI.2006, on flowering *Tetraselago*, E. Colonnelli leg.", 4 exx.

DISTRIBUTION. This taxon is one of the most common species of *Gymnetron* in the south-eastern part of South Africa.

Remarks. The collection of *G. piceum* on *Tetraselago* is a new bionomic datum since this weevil was previously found only on *Selago corymbosa* (Caldara 2003).

## Gymnetron hebenstreitiae Caldara, 2003

Material. Eastern Cape: "E Cape, Paterson, m 300, 33°26'55''S 25°58'12''E, 14. XI.2006, E. Colonnelli leg.", 1ex.

DISTRIBUTION. South Africa (Mpumalanga, Free State, Eastern Cape).

Gymnetron simulator group

### Gymnetron simulator Caldara, 2003

MATERIAL. Eastern Cape: "E Cape, Zuurberg National Park, m 550, 33.21.66 S 25.44.56 E, 16.XI.2006, Osella leg.", 1 ex.

DISTRIBUTION. South Africa (Western and Eastern Cape).

Remarks. This species was previously known only from two localities: Heuningnes river, Struisbaai in the Western Cape and Somerset East in the Eastern Cape.

Gymnetron scalptum group

#### Gymnetron pullulus Caldara, 2003

Material. Western Cape: "W Cape, 25 Km E of Prince Albert, m 900 (karoo), S 33°16.387 E 22°15.306, 11.X.2005, Audisio leg.", 6 exx.

DISTRIBUTION. South Africa (Western and Eastern Cape).

## Gymnetron pumilio Caldara, 2003

Material. Eastern Cape: "E Cape, Road R343 15 km SE of Grahamstown, m 350, 33.23.97 S 26.28.43 E, 3.V.2005, E. Colonnelli leg.", 12 exx.

DISTRIBUTION. South Africa (Western and Eastern Cape, Mpumalanga).

## Gymnetron pauxillum Caldara, 2003

MATERIAL. Western Cape: "W Cape, near Camps Bay, m 100, 33.58.11 S 18.22.21 E, 22.XI.2007, E. Colonnelli leg.", 3 exx.; "W Cape, near Camps Bay - m 100, 33.58.11 S 18.22.21 E, 12.XI.2007, on flowering *Tetraselago*, E. Colonnelli leg.", 6 exx. Eastern Cape: "E Cape, Kareedouw Pass, m 450, 33.57.67 S 24.16.15 E, 16.XI.2006, Osella leg.", 2 exx.; "E Cape, vicinity of Salem, m 180, R343 near Kikuyu Lodge Game Reserve, 33.33.28 S 26.22.83 E, 10.XI.2005, Osella leg." 1 ex.; "E Cape, road N2 10 Km SW of Grahamstown - m 350, 33.22.18 S 26.28.58E, 10/11.XI.2005, on flowering *Tetraselago*, E. Colonnelli leg.", 1ex.; "E Cape, road Atherston to Stonehaven - m 830, 33.20.46 S 26.21.28 E, 3.V.2005, on flowering *Tetraselago*, E. Colonnelli leg.", 7 exx.; "E Cape, Zuurberg Pass road - m 550, 33.21.66 S 25.44.58 E, 17.XI.2006, on flowering *Tetraselago*, E. Colonnelli leg.", 3 exx.

DISTRIBUTION. South Africa (Western and Eastern Cape, Free State).

Remarks. The collection of *G. pauxillum* on *Tetraselago* is a new bionomic datum since this weevil was previously collected on *Selago* cf. *corymbosa* (Caldara 2003).

#### Gymnetron minimum Caldara, 2003

Material. Eastern Cape: "E Cape, Kareedouw Pass, m 450, 33.57.67 S 24.16.15 E, 16.XI.2006, Osella leg.", 1 ex.; "E Cape, 30 km of Alexandria, 33.36.16 S 26.08.18 E, 7.XI.2006, Osella leg.", 4 exx.; "E Cape, Grahamstown, m 750, 13.XI.2006, Osella leg.", 1 ex.; "E Cape, Zuurberg National Park, m 650, 33.21.66 S 25.44.56 E, 17.XI.2006, Osella leg.", 1 ex.; "E Cape, Salem - m 300, 33.28.27 S 26.28.43 E, 3.V.2005, E. Colonnelli leg.", 1 ex.

DISTRIBUTION. This species is widespread in the eastern part of South Africa (Eastern Cape, Free State, KwaZulu Natal, Mpumalanga).

# Gymnetron strigosum Caldara, 2003

MATERIAL. Western Cape: "W Cape, near Camps Bay, m 100, 33.58.11 S 18.22.21

E, 12.XI.2007, E. Colonnelli leg.", 1 ex.; "W Cape, Scarborough, 34.10.43 S 18.21.05 E, 18.XI.2007, on flowering *Pseudoselago*, E. Colonnelli leg.", 12 exx. Eastern Cape: "E Cape, road Port Alfred to Southwell, m 130, 33.35.08 S 26.40.53 E, 11.XI.2005, E. Colonnelli leg.", 1 ex.; "E Cape, vicinity of Salem, m 180, R343 near Kikuyu Lodge Gauda Res., 33.33.28 S 26.22.83 E, 10.XI.2005, G. Osella leg.", 1 ex.; "E Cape, Grahamstown-Toposcope, m 750, 33.19.03 S 26.33.24 E, 11.XI.2005, E. Colonnelli leg.", 1 ex.

DISTRIBUTION. South Africa (Western Cape, Eastern Cape).

Remarks. Nothing was previously known on the biology of this species. Its collection on flowers of *Pseudoselago* is a new bionomic datum, which is in accordance with data on the biology of other species of the group.

## Gymnetron claviger Caldara n. sp.

Type series. "South Africa - Western Cape, Scarborough, Schuster's Bay (fynbos) / 3.XI.2005, G. Osella leg., 34°10'27" S, 18°21'01" E", 1 male holotype (MZUR) and 7 males and 4 females paratypes (4 CAL, 1 MCZR, 6 OSL); "ZA: W Cape - between Ocean View and Scarborough, 34°10'27" S, 18°21'01" E, 3.XI.2005, E. Colonnelli", 2 males and 2 females paratypes (2 CAL, 2 COL); "South Africa - Western Cape, Cape Peninsula, Sunbird Nature Park / 3.XI.2005, G. Osella leg., 34°07'21"S, 18°25'04"E", 1 male paratype (OSL).

HOLOTYPE. Length 1.1 mm. Body moderately elongate, oval. Rostrum black, 0.81x as long as pronotum, subcylindrical, in lateral view weakly curved, slightly tapered toward apex (fig. 7), in dorsal view parallel-sided, at base along dorsal margin weakly concave, distinctly punctate-striate to apex, at basal third covered with sparse, recumbent, short (length/width = 3/4), subelliptical, white scales. From as wide as rostrum at base, without fovea. Eyes weakly convex. Antennae with scape and segments 1 and 2 of funicle reddish and with other segments and club dark brown, inserted just in front of middle; scape 6x as long as wide, funicle as long as scape with segment 1 2x as long as wide, distinctly more robust and 2x as long as segment 2 which is as long as wide, segments 3-5 transverse; club elongate oval, with segment 1 as long as other segments taken together, shining and smooth. Pronotum black, moderately transverse, 1.31x as wide as long, widest at basal third, almost flattened, with slightly curved sides, moderately sparsely and moderately deeply punctured, punctures not of the same size, intervals between them narrow, shining and smooth, vestiture of sparse, recumbent, short (length/width = 4/5), subelliptical, white scales. Elytra black, 1.37x as

long as wide, 1.20x wider than pronotum, widest at middle, weakly convex, sides slightly curved, basal margin slightly concave. Interstriae with integuments clearly visible, with sparse, recumbent, short (length/width 4/5), white scales arranged in single row. Striae with scales similar to those on interstriae. Femora strongly clavate; tibiae short, 4x as long as wide, moderately widening from base to apex, with uncus of all tibiae sharp at apex and of the same length and shape; first segment of tarsi 2x as long as wide, segment 2 as long as wide, segment 3 distinctly wider than segment 2 and clearly bilobed; claws fused in basal half. Ventrites length ratio: 1-2/3-4 2.14. Aedeagus as in fig. 20.

Paratypes. Length 1.0-1.2 mm. Female rostrum distinctly longer, 1.33x as long as pronotum, in lateral view concave at basal third along dorsal margin, slightly curved (fig. 8), hind tibiae lacking uncus. Apart for the sexual differences, there are no substantial differences between the specimens of the type series. It is noteworthy that several paratypes lack part of the scales of the dorsal vestiture. Spermatheca as in fig 21. Spiculum ventrale as in fig. 22.

ETYMOLOGY. The name is a Latin substantive, which refers to the strongly clavate femora.

Remarks. Due to the length and the shape of rostrum, the length of elytra and the width of pronotum, *G. claviger* is similar to both *G. macriculum* Caldara and especially *G. tenue* Caldara. From this latter it can be rather easily separated since *G. claviger* has femora strongly clavate, tibiae short only 4x as long as wide, rostrum moderately arcuate in female, scales of dorsal vestiture mainly recumbent, suberect only at apex of elytra, median lobe of aedeagus distinctly longer, narrowing from base to apex. *G. tenue* has instead femora moderately clavate, tibiae longer, 6x as long as wide, rostrum weakly arcuate in female, scales of dorsal vestiture partly suberect, median lobe of aedeagus short and subparallel-sided.

DISTRIBUTION. South Africa (Western Cape).

#### Gymnetron globiscapus Caldara n. sp.

Type series. "ZA: E Cape - m 630 - road Atherston to Stonehaven, 33°20'46"S

26°21'28"E, 12.XI.2005, E. Colonnelli" 1 male holotype (MZUR), and 7 males and 2 female paratypes (2 CAL, 7 COL); "South Africa: E Cape, near Thornhill, m 300, 33°54'27"S 25°04'03"E, 16.XI.2006, E. Colonnelli", 1 female paratype (COL); "South Africa: E Cape, R72 - 30 km W Alexandria, 33.36.16 S, 26.08.18 E, 6.XI.2006, E. Colonnelli", 1 male and 2 females paratypes (1 CAL, 1 COL, 1 OSL); "S. Africa, C.P., Grahamstown, i.1957, C.B. Cottrell / from gall on *Selago* sp. ?corymbosa", 1 female paratype (BMNH).

HOLOTYPE. Length 0.9 mm. Body moderately short, oval. Rostrum black, short, 0.72x as long as pronotum, subcylindrical, in lateral view almost straight, slightly tapered on apical third (fig. 9), in dorsal view narrowed from base to antennal insertion, then as wide as at base and slightly narrowed towards apex, distinctly punctate-striate up to apex, on basal third covered with sparse, recumbent, short (length/width = 2/3), subelliptical, white scales. From slightly wider than rostrum at base, without fovea. Eyes weakly convex. Antennae dark brown, inserted just behind basal third; scape globose, almost as long as wide, funicle 2.5x as long as scape; segment 1 globose and as long as wide, distinctly more robust and 2x as long as 2, segments 2-5 gradually more transverse; club elongate oval, its segment 1 shining and smooth. Pronotum black, shining and smooth, somewhat transverse, 1.44 as wide as long, with weakly curved sides, widest at base, weakly convex, with moderately sparse, moderately deep punctures unequal in size, intervals between punctures narrow, covered with sparse, recumbent, short (length/width = 3/4), subelliptical, white scales. Elytra black, with sides weakly curved, with basal margin slightly concave, 1.30 as long as wide, 1.27x wider than pronotum, widest at middle, weakly convex. Interstriae clearly visible, with sparse, recumbent to subrecumbent to erect (at apex), short (length/width = 4/6), white scales arranged in single rows. Striae with scales similar to those on interstriae. Femora distinctly clavate; tibiae short, 5x as long as wide, moderately widening from base to apex, with uncus of all tibiae sharp at apex and of the same length and shape; segment 1 and 2 of tarsi almost as long as wide, 3 distinctly wider than 2, distinctly bilobed; claws fused in basal half. Ventrites lenght ratio: 1-2/3-4 2.04. Aedeagus as in G. pauxillum (see Caldara 2003).

Paratypes. Length 0.8-1.0 mm. The scales of the dorsal vestiture vary a little in density and width. Female as male except rostrum slightly longer almost completely shining and smooth from antennal insertion to apex, hind tibiae lacking uncus. Spermatheca and spiculum ventrale as in *G. claviger* (figs 21 and 22).

ETYMOLOGY. The name is a Latin substantive, which refers to the globose shape of the antennal scape.

DISTRIBUTION. South Africa (Eastern Cape).

REMARKS. *G. globiscapus* is similar to *G. minimum* and *G. pauxillum*, from which chiefly differs by the dorsal scales distinctly shorter and not erect, and the smaller size. Moreover, *G. globiscapus* differs from *G. pauxillum*, with which probably shares the same host plant, by the shape of the rostrum, and from *G. minimum* by the shape of the aedeagus.

## **Gymentron filum** Caldara n. sp.

Type series. "South Africa: Natal, between Nottingham road and Fort Nottingham - m 1450, 29.23.57 S 29.59.27 E, 30.IV.2005 - E. Colonnelli" (MZUR), and 3 males and 3 females paratypes (2 CAL, 4 COL).

HOLOTYPE. Length 1.4 mm. Body elongate, thin, cylindrical. Rostrum black, moderately long, 0.90x as long as pronotum, subcylindrical, in lateral view almost straight, of same width from base to apex (fig. 11), in dorsal view parallel-sided, distinctly punctate-striate up to apex, on basal third covered with sparse, recumbent to subrecumbent, short (length/width = 3/5), subelliptical, white scales. From as wide as rostrum at base, without fovea. Eves moderately convex. Antennae dark brown, inserted just in front of basal third; scape short, 2.5x as long as wide, funicle 1.3x as long as scape, first segment 1.5x as long as wide, distinctly more robust and 1.7x as long as 2, which is as long as wide, segments 3-5 gradually more transverse, club moderately elongate oval, its segment 1 shining and smooth. Pronotum black, moderately transverse, 1.25x as wide as long, subconical, with weakly curved sides, widest at base, moderately convex, with moderately sparse, moderately deep punctures of different size, intervals between punctures narrow, shining and smooth; covered with sparse, recumbent, short (length/width = 3/5), subelliptical, white scales. Elytra black, very long, 1.76 as long as wide, 1.17x wider than pronotum, moderately convex, parallel-sided, basal margin slightly concave. Interstriae clearly visible, with sparse, recumbent to subrecumbent, short (length/width = 4/6) white scales arranged in single row. Striae with scales similar to those on interstriae. Femora clavate; tibiae moderately elongate, with uncus of all tibiae sharp at apex and of the same length and shape; segment 1 of tarsi 1.8x as long as wide, segment 2 1.3x as long as wide, 3 distinctly wider than 2 and distinctly bilobed; claws fused in basal half. Ventrites length ratio: 1-2/3-4 2.03. Aedeagus as in fig. 23.

Paratypes. Length 1.2-1.5 mm. Female as male except rostrum longer (fig. 12), 1.03x longer as pronotum, shining and smooth from antennal insertion to apex, tibiae shorter and more robust, hind tibiae lacking uncus. Spermatheca and spiculum ventrale as in *G. claviger* (figs 21 and 22).

ETYMOLOGY. The name is a Latin substantive, which refers to the very elongate "thread-like" shape of this species.

DISTRIBUTION. South Africa (KwaZulu/Natal).

REMARKS. Due to its very long elytra *G. filum* is similar to *G. corpusculum* Caldara, 2003, *G. prolixum* Caldara, 2003 and *G. strigosum* Caldara. It is clearly distinguishable from all of these three species by the shape of the rostrum.

BIONOMICS. Also this species was found on *Tetraselago*.

Gymnetron difforme group

## Gymnetron hybridum Caldara n. sp.

Type series. "South Africa: E Cape, Road R343 - 15 km SE of Grahamstown - m 350, 33.23.97 S 26.28.43 E, 3.V.2005 - E. Colonnelli" (MZUR), and 4 males and 1 female paratypes (2 CAL, 3 COL); "South Africa, C.P., Grahamstown, Faraway Farm, 33.20S 26.28E, 29.i.1991, ex roots gall on *Selago corymbosa* (Selaginaceae)", 2 males paratypes (SANC).

HOLOTYPE. Length 3.2 mm. Body elongate, robust, cylindrical. Rostrum black, short, 0.00x as long as pronotum, in lateral view almost straight, but gibbose at antennal insertion along the dorsal margin, slightly narrowed from base to apex, in dorsal view subparallel-sided in basal two thirds, then slightly widening towards apex, distinctly punctate up to apex, with longitudinal wide and deep sulcus on middle third, and with shallow and narrow sulcus on basal third, on basal half covered

with somewhat dense, recumbent, moderately long (length/width = 6/7), subelliptical, white and brown scales. From as wide as rostrum at base, with distinct fovea. Eyes small, convex. Antennae blackish, inserted in basal third; scape short, 1.5 as long as wide, distinctly clavate; funicle 2.5x as long as scape, segment 1 hardly as long as wide, 2.5x as long as 2, segments 2-5 distinctly transverse, club moderately short, oval, with basal half of segment 1 glabrous. Pronotum black, moderately transverse, 1.27x as wide as long, with sides weakly curved, widest at base, moderately convex, with dense and deep punctures, intervals between punctures shining and smooth, surface somewhat visible between rather dense, quite long (length/width = 7/10), for the most part recumbent and suberect only at apex white and brown scales, being the white scales more numerous on sides and along median line. Elytra black, subparallel-sided, with basal margin slightly concave, long, 1.50x as long as wide, 1.27x wider than pronotum, moderately convex. Interstriae moderately visible, with somewhat dense, recumbent to subrecumbent, short (length/width = 6/8) light brown and white irregularly arranged scales on odd-numbered interstriae except interstria 3. Striae hardly distinguishable from interstriae, narrow, 0.5x as wide as interstriae, with shallow punctures, clothed by scales similar to those on interstriae. Femora clavate; tibiae moderately elongate, with uncus of all tibiae sharp at apex and of the same length and shape, protibiae with small premucro; first segment of tarsi 1.8x as long as wide, second 1.3x as long as wide, third distinctly wider than 2, distinctly bilobed; claws fused in basal half. Ventrites lenght ratio: 1-2/3-4 1.82. Aedeagus as in fig. 24.

Paratypes. Length 3.1-3.4 mm. Female as male except rostrum thinner and longer (fig. 14), 0.82x longer as pronutum length, shining and smooth from antennal insertion to apex. Spermatheca as in fig. 25. Spiculum ventrale as in fig. 26.

ETYMOLOGY. The name is a Latin adjective, which means that this species seems intermediate between *G. difforme* Caldara and *G. aenigma* Caldara

DISTRIBUTION. South Africa (Eastern Cape).

Remarks. This species is closely related to *G. difforme* (known only from males), from which clearly differs by the denser dorsal vestiture

which is moreover composed only of recumbent scales, the elytra with flat interstriae and striae hardly distinguishable, almost as in *G. aenigma* Caldara, 2003, the aedeagus distinctly different.

BIONOMICS. Also this species, as other South African *Gymnetron* belonging to other groups, live on *Selago*.

Gymnetron bisignatum group

## Gymnetron perrinae Caldara, 2003

Material. Western Cape: "W Cape, 5 Km S of Montagu - m 230, 33°48'12"S 20°06'02"E, 19.XI.2007, E. Colonnelli leg.", 24 exx. Eastern Cape: "E Cape, Paterson - m 300, 33°26'55"S 25°58'12"E, 17.X.2006, on flowering *Wahlenbergia*, E. Colonnelli leg.", 4 exx.

DISTRIBUTION. This species is widespread in the whole South Africa and is also known from Namibia.

Remarks. It is well known that the development of this species takes place on *Diascia* and *Nemesia* (Caldara 2003). Therefore, it is probable that *Wahlenbergia* is only a refuge plant.

#### Gymnetron colonnellii Caldara, 2003

Material. Western Cape: "W Cape, 5 Km S of Montagu - m 230, 33°48'12"S 20° 06'02"E, 19.XI.2007, E. Colonnelli leg.", 1 ex.

DISTRIBUTION. South Africa (Western Cape).

Remarks. This species was previously known only from the type locality, Montagu.

*Mecinus pascuorum* group

#### Mecinus pascuorum (Gyllenhal, 1813)

MATERIAL. Eastern Cape: "E Cape, Zuurberg National Park, m 550, 33.21.66 S 25.44.56 E, 16.XI.2006, Osella leg.", 1 ex.

DISTRIBUTION. Europe, Middle East, Central Asia, Algeria (Hoffmann, 1958). Imported in North America, Australia and New Zealand.

REMARKS. *Mecinus* is a Palaearctic genus and *M. pascuorum* is one of its commonest species. This species together with its host plant, *Plantago lanceolata* L., was imported in North America, Australia and New Zealand (O'Brien & Wibmer, 1982; Debinski & Holt, 2000). This is the first collection of *M. pascuorum* in the Afrotropical Region and this datum is not completely surprising since *P. lanceolata*, the Buckhorn Plantain, is considered a common weeds in South Africa where infests orchards and vineyards (South African National Biodiversity Institute 2009).

## Cleopomiarus plantarum group

## Cleopomiarus ibirostris Caldara, 2005

MATERIAL. Western Cape: "W Cape, Cederberg, 2 km N of Boshof, m 300, 32.20.46 S, 18.59.06 E. Colonnelli leg.", 1 ex.; "Western Cape, Finlay Point, m 150, 12.XI.2007, Giusto, Colonnelli & Osella legg.". 1 ex. Eastern Cape: "E Cape, Elliot, Thompson, 1170 m, 31.12.80 S 28.10.17 E, 11.XI.2006, Osella leg.", 21 exx.; "E Cape, Elliot, 1100 m, 31.19.35 S 27.50.24 E, 11.XI.2006, on flowering *Wahlenbergia* sp., E. Colonnelli leg.", 1 ex

DISTRIBUTION. This species is widespread in the eastern and southern part of South Africa (Western Cape, Eastern Cape, KwaZulu Natal, Mpumalanga) (Caldara, 2005).

Remarks. Its biology, as well as that of most Afrotropical congeneric species, was uknown. Its collection on *Wahlenbergia* is perhaps occasional.

## Cleopomiarus aduncinasus Caldara, 2005

Material. Eastern Cape: "E Cape, Elliot, Thompson, 1170 m, 31.12.80 S 28.10.17 E, 11.XI.2006, Osella leg.", 13 exx.; "E Cape, Elliot - m 1100, 31°19'35"S 27°50'24"E, 11.XI.2006, E. Colonnelli leg.", 2 exx.

DISTRIBUTION. This species is widespread in the eastern part of South Africa as well as in Lesotho.

## Cleopomiarus echinus Caldara, 2005

Material. Mpumalanga: "Mpumalanga, 16 Km W of Badplaas - m 1393, S 26° 02.397 E 30°24.442 (meadows), 15.II.2007, Audisio leg.", 3 exx.

DISTRIBUTION. Eastern part of South Africa (Mpumalanga, Free State, KwaZulu/Natal and Eastern Cape).

## Cleopomiarus plebejus (Rosenschoeld, 1838)

MATERIAL. Western Cape: "W Cape, road Ashton-Montagu, Kogmanskloof - m 180, S 33°49.436 E 20°05.417, 9.X.2005, Audisio Biondi & De Biase leg.", 1 ex.; "W Cape, Cape Town, Table Mountain, Pipe track - m 270, S 33°56.618 E 18°23.644, 16.X.2005, Audisio Biondi & De Biase leg.", 1 ex. Eastern Cape: "E Cape, Paterson - m 300, S 33°26′55" E 25°58′12", 17.X.2006, Colonnelli leg.", 3 exx.; "E Cape, old road to Katberg Pass - m 1250, 32°19′71"S 26°40′51"E, 12.XI.2006, E. Colonnelli leg.", 1 ex.

DISTRIBUTION. South Africa (Northern, Western and Eastern Cape).

#### Cleopomiarus graminis group

## Cleopomiarus lobeliae Caldara, 2005

MATERIAL. Western Cape: "W Cape, Hermanus, 34°25'S 19°14'E, 16.XI.2005, E. Colonnelli leg.", 5 exx,; "W Cape, Hermanus - m 50, 34°24'47"S 19°14'09"E, 22.XI. 2007, on *Lobelia*, E. Colonnelli leg.", 10 exx.; "W Cape, Hermanus, Kleinriviersberg, m 150, 16.XI.2005, Osella leg.", 6 exx.; "W Cape, Swellendam, Marloth Natural Reserve, 19.XI.2007, 33.58.58 S, 20.26.18 E, E. Colonnelli leg.", 1 ex. Eastern Cape: "E Cape, Port Elisabeth dint., 18.XI.2006, Osella leg.", 1 ex.; "E Cape, Elliot, Thompson, 1170 m, 31.12.80 S 28.10.17 E, 11.XI.2006, Osella leg.", 2 exx.

DISTRIBUTION. Eastern part of South Africa (Western Cape, Eastern Cape, KwaZulu Natal).

Remarks. This species was already previously known as living on some species of *Lobelia*.

### Cleopomiarus parvulus Caldara, 2005

Material. Eastern Cape: "E Cape, Kenton on Sea, 33.42.40 S 26.35.64 E, 6.XI.2006, Osella leg.", 1 ex.

DISTRIBUTION. South Africa (Western, Eastern and Northern Cape, KwaZulu/Natal) and Namibia.

## Cleopomiarus seriepilosus (Gyllenhal, 1838)

MATERIAL. Eastern Cape: "E Cape, Zuurberg National Park, m 550, 33.21.66 S 25.44.56 E, 16.XI.2006, Osella leg.", 4 exx.

DISTRIBUTION. South Africa (Western and Eastern Cape).

#### Cleopomiarus zebratus Caldara, 2005

Material. KwaZulu/Natal: "Natal, Fort Nottingham, m 1490, 27°25'24" S 29°54'71" E, 29.IV.2005, E. Colonnelli leg.", 1 ex.

## Cleopomiarus trivialis group

#### Cleopomiarus contractus Caldara, 2005

Material. Eastern Cape: "E Cape, vicinity of Coega, 33°47'S 25°36'E, 4.V.2005, E. Colonnelli leg.", 1 ex.; "E Cape, Harkerville forest - Kranshoek, 34°05'27"S 23°13'68"E, 8.XI.2005, E. Colonnelli leg.", 1 ex.

DISTRIBUTION. South Africa (Western and Eastern Cape), Namibia.

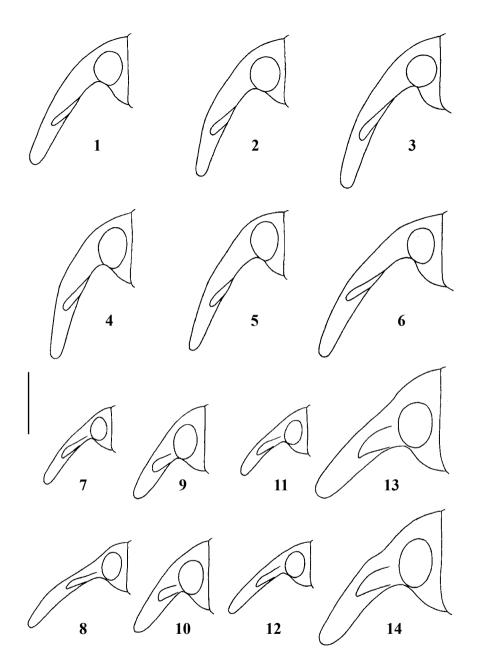
#### Cleopomiarus similaris Caldara, 2005

Material. Western Cape: "W Cape, Montagu, m 300, 33°47'08"S, 20°06'79"E, 18.XI.2007, E. Colonnelli leg.", 7 exx.; "W Cape, Montagu, m 300 ca., 18.XI.2007, Giusto, Colonnelli & Osella leg.", 1 ex. Eastern Cape: "E Cape, Elliot - m 1100, 31°19'35"S 27°50'24"E, 11.XI.2006, E. Colonnelli", 1 ex.

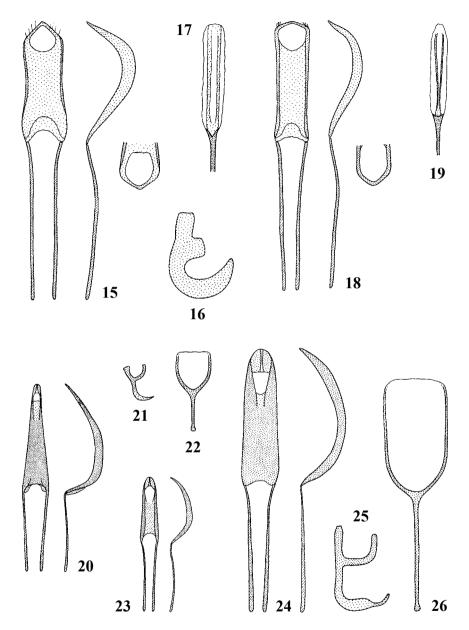
DISTRIBUTION. South Africa (Mpumalanga, KwaZulu Natal and Eastern Cape).

#### CONCLUSION

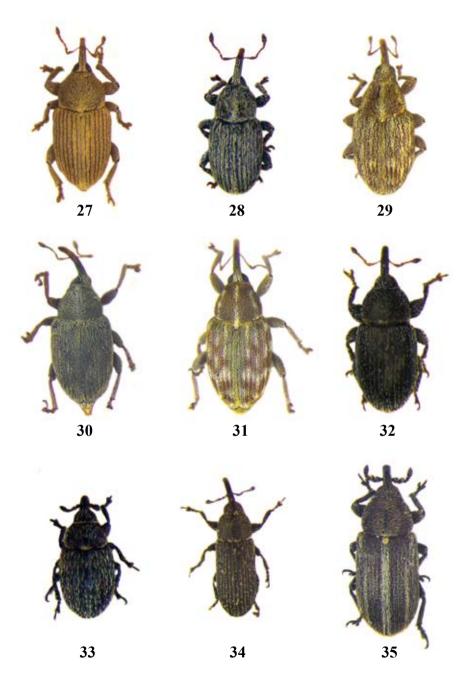
Seventy one species belonging to the four genera here considered have been recognized: 13 *Tychius*, 29 *Sibinia*, 19 *Gymnetron*, and 10 *Cleopomiarus*. All of them belong to already known groups, and it is noteworthy that ten of the recently collected species are new, although only seven of them are here described due to inadequate material of three taxa. The number of the previously described species is also noteworthy,



Figs 1-14 – Rostra in lateral view of: *Tychius densevestitus* male (1), female (2); *T. saetosipennis* male (3), female (4); *Sibinia incompta* male (5), female (6); *Gymnetron claviger* male (7), female (8); *G. globiscapus* male (9), female (10); *G. filum* male (11), female (12); *G. hybridum* male (13), female (14). Scale bar = 0.4 mm (figs 1-8 and 11-14); 0.8 mm (figs 9 and 10). Schematic drawings.



Figs 15-26 – *Tychius densevestitus*, median lobe in dorsal, lateral and apical view (15); spermatheca (16), spiculum ventrale (17); *T. saetosipennis*, median lobe in dorsal, lateral and apical view (18); spiculum ventrale (19); *Gymnetron claviger*, median lobe in dorsal and lateral view (20); spermatheca (21), spiculum ventrale (22); *G. filum*, median lobe in dorsal and lateral view (23); *G. hybridum*, median lobe in dorsal and lateral view (24); spermatheca (25), spiculum ventrale (26). Scale bar = 0.2 mm (figs 15, 17, 18, 19, 20, 22, 23, 24, 26); 0.4 mm (figs 15, 21, 25). Schematic drawings.



Figs 27-35 – Habitus of *Tychius densevestitus*, holotypus (27); *T. saetosipennis*, holotypus (28); *Sibinia incompta*, holotypus (29); *S. relata* from Scarborough (30); *S. relata* from Boshof (31); *Gymnetron claviger*, holotypus (32); *G. globiscapus*, holotypus (33); *G. filum*, holotypus (34); *G. hybridum*, holotypus (35). Not at the same scale.



Figs 36-37 – Carpobrotus flower with feeding Sibinia amylacea (bottom) and Oosomus egenus Boheman, 1843 (left), plant growing near Vishoek, Western Cape (36). Unknown Aizoaceae, host plant of Sibinia incompta, growing on sand dunes near Kenton on Sea, Eastern Cape (37).

since it represents about 30% of the taxa thus far known from South Africa. Females of two species, *Tychius helenae* and *Sibinia youngai*, known only upon males, were also collected.

Host plants of 18 species are recorded for the first time, quite a remarkable result, considering that previously we had biological data for only 40 species. With regard to *Sibinia*, it is confirmed that the Afrotropical species feed preferably on Aizoaceae, and now we have data on

members of seven out of the eight Afrotropical species groups. One of the most attractive plant is surely *Galenia africana*, which is a very common plant in the dry areas of the Western Cape. All of the six species of *Gymnetron* of which we presently know the host plant, were collected on Scrophulariaceae Selagineae, confirming that this is the family of plants on which Afrotropical as well as Palaearctic species usually feed.

As for distribution, new interesting data have been gathered on 12 species, some of which previously known only upon one or a few specimens collected in a single locality. Moreover, it is noteworthy the collection of *Mecinus pascuorum* in the Afrotropical region for the first time.

Since it appears clear that many taxa belonging to Tychiini and Mecinini have still to be discovered and described, and since it is plain that also in South Africa many habitats are being progressively destroyed, it should be very important to plan other researches there, especially in provinces presently entomologically poorly known, as the Northern Cape and Mpumalanga. A future collecting in South Africa, focused to gather also specimens in alcohol for molecular studies, and to discover the host plants of as many as possible species would be thus very welcome.

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#### **SUMMARY**

Seventy one species of Tychiini Tychiina and Mecinini collected in South Africa are here reported, among which seven are new: *Tychius densevestitus* Caldara n. sp.; *Tychius saetosipennis* Caldara n. sp.; *Sibinia incompta* Caldara n. sp.; *Gymnetron claviger* Caldara n. sp.; *Gymnetron globiscapus* Caldara n. sp.; *Gymnetron filum* Caldara n. sp.; *Gymnetron hybridum* Caldara n. sp. Were collected females of two species previously known only from males, *Tychius helenae* Caldara, 1989 and *Sibinia youngai* Caldara, 1993. The presumable host plant of 18 species is reported for the first time. New data on distribution of several species are also given. The Palaearctic species *Mecinus pascuorum* (Gyllenhal, 1813) is reported for the first time from the Afrotropical region.

#### RIASSUNTO

Elenco delle specie di Tychiini e Mecinini recentemente raccolte in Sudafrica, con la descrizione di sette nuove specie (Coleoptera, Curculionidae).

Viene riportato l'elenco delle specie di Tychiini Tychiina e Mecinini raccolti in Sudafrica. Si tratta di 71 specie, sette delle quali nuove per la scienza: *Tychius densevestitus* Caldara n. sp.; *Tychius saetosipennis* Caldara n. sp.; *Sibinia incompta* Caldara n. sp.; *Gymnetron claviger* Caldara n. sp.; *Gymnetron globiscapus* Caldara n. sp.; *Gymnetron filum* Caldara n. sp.; *Gymnetron hybridum* Caldara n. sp. Sono descritte le femmine di due specie, *Tychius helenae* Caldara, 1989 e *Sibinia youngai* Caldara, 1993, delle quali precedentemente si conosceva solo il maschio, Viene segnalata per la prima volta la probabile pianta ospite di 18 specie. Sono riportati anche nuovi dati sulla distribuzione di numerose specie. *Mecinus pascuorum* (Gyllenhal, 1813), specie originaria della regione paleartica è segnalato per la prima volta per la regione afrotropicale.

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